



Water-Data Report 2008

01466500 MCDONALDS BRANCH IN BYRNE STATE FOREST, NJ

DELAWARE RIVER BASIN

LOCATION.--Lat 39°53'06", long 74°30'19" referenced to North American Datum of 1983, Woodland Township, Burlington County, NJ, Hydrologic Unit 02040202, on right bank, 25 ft upstream from culvert on Butterworth Road in Brendan T. Byrne State Forest, 3.4 mi upstream from confluence with Cooper Branch, and 7.0 mi southeast of Browns Mills.

DRAINAGE AREA.--2.35 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1953 to current year. Prior to October 1962, published as "McDonald Branch in Lebanon State Forest". October 1962 through September 2003, published as "McDonalds Branch in Lebanon State Forest".

REVISED RECORDS.--WDR NJ-82-2: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 117.73 ft above NGVD of 1929 (levels from New Jersey Geological Survey benchmark).

REMARKS.--Records fair, except for estimated daily discharges, which are poor. Gage-height record is collected above concrete control, and discharge record, which includes leakage around control, is measured at site 785 ft downstream. Several measurements of water temperature were made during the year. Satellite gage-height telemetry at station.

PEAK DISCHARGES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7.0 ft³/s and (or) maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar 9	1230	*4.5	*1.54

01466500 MCDONALDS BRANCH IN BYRNE STATE FOREST, NJ—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES
[*e*, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.83	0.85	0.97	1.4	1.9	2.0	2.2	1.9	1.6	0.93	0.90	0.82
2	0.83	0.85	1.0	1.3	2.2	2.0	2.2	1.9	1.5	0.92	0.89	0.82
3	0.83	0.85	1.3	e1.4	2.1	2.0	2.1	1.9	1.4	0.90	0.89	0.83
4	0.83	0.85	1.1	e1.4	2.4	2.0	2.4	1.9	1.7	0.90	0.88	0.82
5	0.83	0.85	1.1	e1.4	2.2	2.2	2.3	1.9	1.6	0.93	0.88	0.82
6	0.83	0.90	1.1	e1.4	2.1	2.1	2.3	1.8	1.5	0.93	0.88	1.2
7	0.83	0.86	1.1	e1.4	2.1	2.2	2.3	1.8	1.5	0.99	0.87	1.3
8	0.83	0.84	1.0	e1.4	2.0	3.4	2.2	1.8	1.4	0.98	0.87	1.0
9	0.83	0.83	1.0	e1.4	1.9	4.3	2.2	2.0	1.4	0.93	0.86	0.99
10	0.91	0.83	1.1	e1.4	1.9	3.8	2.2	2.0	1.4	0.92	0.90	0.97
11	0.85	0.83	1.1	1.6	1.8	3.1	2.1	1.9	1.3	0.89	1.00	0.91
12	0.85	0.83	1.1	1.6	1.8	2.8	2.1	2.0	1.3	0.88	0.93	0.88
13	0.85	0.83	1.1	1.5	2.5	2.6	2.1	1.9	1.2	0.88	0.90	0.89
14	0.84	0.83	1.1	1.7	2.9	2.5	2.1	1.9	1.2	0.89	0.93	0.87
15	0.83	0.83	1.1	1.5	3.4	2.5	2.0	1.8	1.3	0.88	1.2	0.86
16	0.83	0.83	1.4	1.5	2.9	2.4	2.0	2.1	1.2	0.87	0.98	0.85
17	0.83	0.80	1.2	1.5	2.5	2.3	2.0	2.1	1.2	0.86	0.91	0.85
18	0.83	0.80	1.2	1.8	2.4	2.3	2.0	2.0	1.2	0.86	0.87	0.84
19	0.93	0.80	1.2	1.6	2.3	2.4	2.0	2.0	1.2	0.85	0.86	0.83
20	0.93	0.79	1.2	1.6	2.2	2.6	2.0	2.0	1.1	0.85	0.85	0.83
21	0.85	0.79	1.2	1.5	2.1	2.4	2.0	2.1	1.1	0.85	0.85	0.82
22	0.84	0.81	1.2	1.6	2.1	2.3	2.0	2.0	1.1	0.85	0.85	0.82
23	0.84	0.82	1.3	1.6	2.2	2.3	2.0	2.1	1.0	0.85	0.85	0.82
24	0.86	0.83	1.3	1.6	2.1	2.3	1.9	1.9	1.0	1.1	0.85	0.82
25	0.93	0.85	1.3	1.6	2.0	2.3	1.9	1.9	1.0	1.0	0.85	0.83
26	0.90	0.94	1.2	e1.5	2.1	2.2	1.9	1.8	0.99	0.96	0.84	0.93
27	0.96	0.92	1.2	e1.5	2.2	2.2	1.9	1.8	0.99	0.97	0.84	0.89
28	0.90	0.90	1.2	e1.5	2.1	2.2	1.9	1.7	1.0	0.99	0.84	0.86
29	0.86	0.92	1.5	e1.5	2.0	2.1	2.0	1.6	0.95	0.93	0.84	0.87
30	0.86	0.94	1.3	e1.5	---	2.1	1.9	1.6	0.95	0.92	0.83	0.85
31	0.85	---	1.5	e1.5	---	2.1	---	1.6	---	0.92	0.83	---
Total	26.60	25.40	36.67	46.7	64.4	76.0	62.2	58.7	37.28	28.38	27.52	26.69
Mean	0.86	0.85	1.18	1.51	2.22	2.45	2.07	1.89	1.24	0.92	0.89	0.89
Max	0.96	0.94	1.5	1.8	3.4	4.3	2.4	2.1	1.7	1.1	1.2	1.3
Min	0.83	0.79	0.97	1.3	1.8	2.0	1.9	1.6	0.95	0.85	0.83	0.82
Cfsm	0.37	0.36	0.50	0.64	0.94	1.04	0.88	0.81	0.53	0.39	0.38	0.38
In.	0.42	0.40	0.58	0.74	1.02	1.20	0.98	0.93	0.59	0.45	0.44	0.42

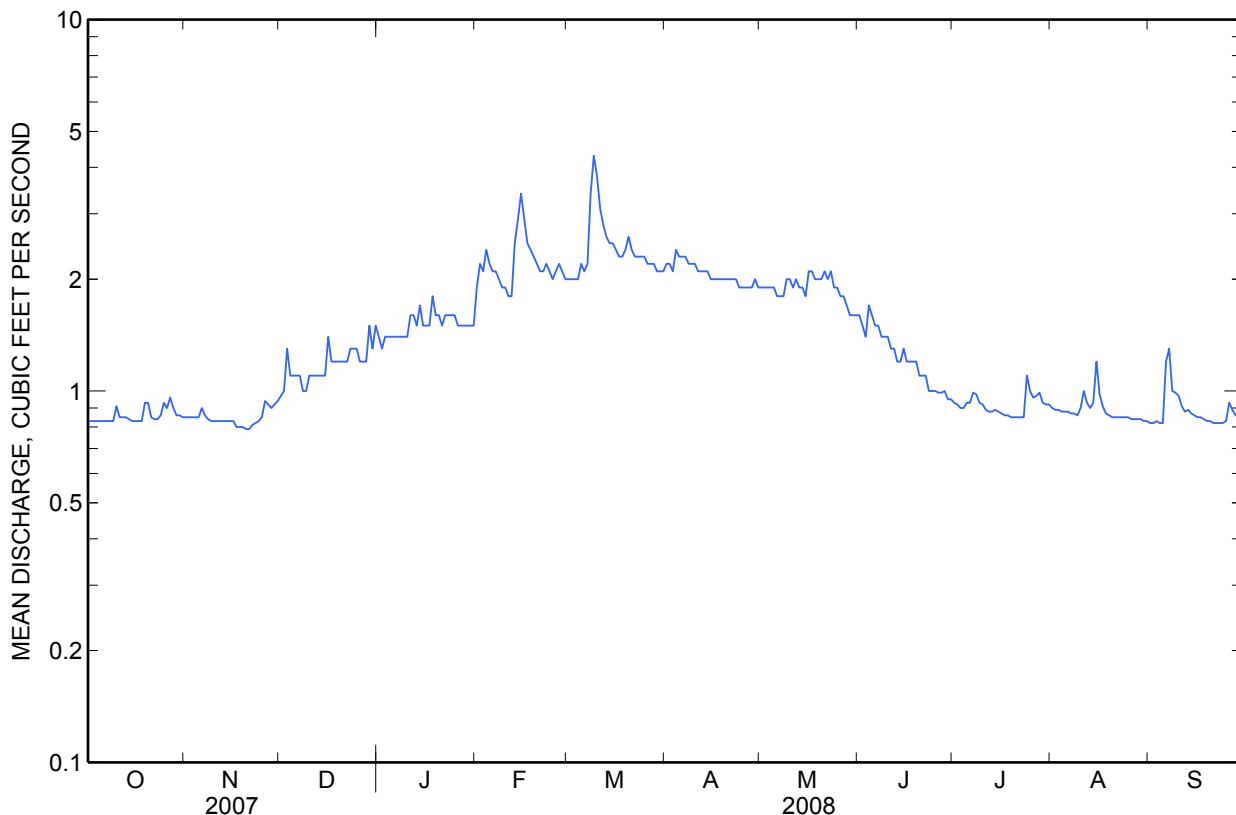
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	1.53	1.70	2.03	2.26	2.38	2.84	2.87	2.56	2.11	1.81	1.73	1.58
Max	4.45	4.82	5.75	4.78	5.69	5.67	5.74	6.86	5.35	4.15	5.65	4.31
(WY)	(1959)	(1973)	(1973)	(1973)	(1973)	(1979)	(1984)	(1998)	(1979)	(1958)	(1958)	(1958)
Min	0.80	0.85	0.87	0.85	0.83	0.94	1.10	1.17	1.05	0.90	0.80	0.71
(WY)	(1996)	(2008)	(2002)	(2002)	(2002)	(2002)	(2002)	(1995)	(1995)	(2002)	(2002)	(1995)

01466500 MCDONALDS BRANCH IN BYRNE STATE FOREST, NJ—Continued**SUMMARY STATISTICS**

	Calendar Year 2007	Water Year 2008	Water Years 1954 - 2008
Annual total	726.05	516.54	
Annual mean	1.99	1.41	2.12
Highest annual mean			3.85
Lowest annual mean			0.95
Highest daily mean	15 Apr 16	4.3 Mar 9	20 Feb 28, 1958
Lowest daily mean	0.79 Nov 20	0.79 Nov 20, 21	0.50 Oct 13, 1995
Annual seven-day minimum	0.80 Nov 17	0.80 Nov 17	0.58 Oct 8, 1995
Maximum peak flow		4.5 Mar 9	38 Jul 13, 2004
Maximum peak stage		1.54 Mar 9	2.33 Aug 25, 1958
Instantaneous low flow		0.79 Nov 20, 21	0.49 Oct 13, 1995
Annual runoff (cfsm)	0.846	0.601	0.901
Annual runoff (inches)	11.49	8.18	12.24
10 percent exceeds	3.4	2.2	3.5
50 percent exceeds	1.6	1.2	1.8
90 percent exceeds	0.85	0.83	1.1

a Caused by groundwater pump test adjacent to site.



01466500 MCDONALDS BRANCH IN BYRNE STATE FOREST, NJ—Continued**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--Water years 1963-96, 1998 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1968 to September 1992.

pH: October 1984 to September 1992.

WATER TEMPERATURE: October 1960 to September 1992.

DISSOLVED OXYGEN: October 1984 to September 1992.

REMARKS.--Chemical analyses are from samples collected as water flows over the weir at the gaging station. All discharge record represents flow at a point 785 ft downstream of the gaging station. Discharges at the weir may be about 1 ft³/s less than the discharge values in the following water-quality table. Cooperative Network Site Descriptor: Background and Low Level Mercury Assessment special study site, NJ Department of Environmental Protection Watershed Management Area 19. Samples on Nov 19, Feb 4, Jun 10, and Aug 14 were collected as part of the Ambient Surface-Water-Quality Monitoring Network; those on Nov 2 and Mar 19 were for the Low Level Mercury Assessment. All other samples were collected as part of the U.S. Geological Survey Hydrologic Benchmark Network.

COOPERATION.--Physical measurements and samples for laboratory analyses on Nov 2, Nov 19, Feb 4, Mar 19, Jun 10, and Aug 14 were provided by personnel of the NJ Department of Environmental Protection. Determinations of dissolved ammonia, dissolved orthophosphate, and suspended residue on those dates were performed by the NJ Department of Health and Senior Services, Environmental and Chemical Laboratory. Analyses of samples collected as part of the Hydrologic Benchmark Network were performed by the USGS New York Water Science Center Laboratory in Troy, New York.

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Part 1 of 6

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	Time	Sample medium and type	Turbdty	UV	UV	Baro-	Dis-	Dis-
			Instan-	white	absorb-			
			taneous	light,	ance,	ance,	pres-	oxy-
			dis-	det ang	254 nm,	280 nm,	ure,	gen,
			charge,	90+/-30	wat flt	wat flt	mm Hg	mg/L
			ft3/s	corrctd	units	units	(00025)	(00300)
			(00061)	NTRU	/cm	/cm		
				(63676)	(50624)	(61726)		
Nov								
02...	1215	QC - Artificial, field blank	--	--	--	--	--	--
02...	1225	Surface water, regular	.85	.3	--	--	770	2.7
02...	1230	Surface water, regular	.85	--	--	--	--	--
19...	1030	Surface water, regular	.80	.2	.103	.079	769	2.6
Feb								
04...	1045	QC - Artificial, field blank	--	--	--	--	--	--
04...	1100	Surface water, regular	2.4	.4	.331	.243	769	7.8
Mar								
19...	1215	QC - Artificial, field blank	--	--	--	--	--	--
19...	1230	Surface water, regular	2.3	.2	--	--	754	5.8
Jun								
10...	1000	Surface water, regular	1.4	.2	.244	.184	754	2.2
Aug								
14...	0945	Surface water, regular	.90	.3	.127	.100	753	2.5
								26

01466500 MCDONALDS BRANCH IN BYRNE STATE FOREST, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 2 of 6

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	Specif-											
	pH, water, unfltrd field, std units (00400)	conduc- tance, wat unf μS/cm (00095)	Temper- ature, air, deg C (25 degC)	Temper- ature, water, deg C (00020)	Hard- ness, water, mg/L as CaCO3 (00900)	Calciu- m, water, filtrd, mg/L (00915)	Magnes- ium, water, filtrd, mg/L (00925)	Potas- sium, water, filtrd, mg/L (00935)	Sodium, water, filtrd, mg/L (00930)	Chlor- ide, water, filtrd, mg/L (00940)	Fluor- ide, water, filtrd, mg/L (00950)	Silica, water, filtrd, mg/L as SiO2 (00955)
Nov												
02...	--	--	--	--	--	--	--	--	--	--	--	--
02...	4.3	35	13.7	13.7	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--
19...	4.3	36	6.0	8.9	2	.32	.374	.31	1.96	3.45	<.12	5.0
Feb												
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	4.2	72	7.5	4.2	5	.80	.805	.51	2.48	3.85	<.12	4.4
Mar												
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	4.4	57	13.0	6.6	--	--	--	--	--	--	--	--
Jun												
10...	4.2	41	32.0	15.6	2	.39	.372	.20	1.76	3.58	<.12	3.6
Aug												
14...	4.5	30	25.0	15.4	2	.32	.325	.27	1.89	3.34	<.12	5.0
												3.78

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 3 of 6

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	Residue on evap. at 180degC wat flt mg/L (70300)	Residue total non- filter- able, mg/L (00530)	Ammonia + org-N, water, mg/L (00623)	Ammonia water, mg/L (00608)	Nitrate + nitrite water, mg/L (00631)	Partic- ulate nitro- gen, susp, water, mg/L (49570)	Total nitro- gen, water, filtrd, mg/L (00602)	Ortho- phosphate, water, filtrd, mg/L (00671)	Phos- phorus, water, filtrd, mg/L (00666)	Phos- phorus, water, unfltrd unfltrd, mg/L (00665)	Total carbon, suspnd sedimnt total, mg/L (00694)	Inor- ganic carbon, suspnd sedimnt total, mg/L (00688)	Organic carbon, suspnd sedimnt total, mg/L (00689)
Nov													
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	19	<1	E.08	.020	<.04	E.02	--	<.010	<.008	<.008	E.1	<.04	<1
Feb													
04...	--	--	--	--	--	--	--	--	--	--	--	--	--
04...	39	<1	.19	E.006	E.04	<.04	E.23	<.010	<.008	<.008	.2	<.04	.2
Mar													
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--	--
Jun													
10...	21	<1	E.12	<.010	<.04	<.04	--	E.005	<.008	<.008	E.1	<.04	<1
Aug													
14...	21	<1	E.13	<.010	E.02	<.04	E.15	E.005	<.008	<.008	.2	<.04	.2

01466500 MCDONALDS BRANCH IN BYRNE STATE FOREST, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 4 of 6

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	Organic carbon, water, fltrd, mg/L (00681)	Alum- inum, water, fltrd, µg/L (01106)	Beryll-		Boron, water, unfltrd, µg/L (01012)	Boron, water, unfltrd, µg/L (01020)	Chrom-		Copper, water, unfltrd, µg/L (01040)	Copper, water, unfltrd, µg/L (01042)	Iron, water, fltrd, µg/L (01046)
			Barium, water, unfltrd, recoverable, µg/L (01007)	ium, water, unfltrd, recoverable, µg/L (01002)			Cadmium water, unfltrd, µg/L (01027)	ium, water, unfltrd, recoverable, µg/L (01034)			
Nov											
02...	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--
19...	2.2	--	--	--	--	7.7	--	--	--	--	--
Feb											
04...	--	--	<.06	--	--	--	--	--	--	<1.0	--
04...	9.9	--	.23	E.34	17.6	.06	9.5	E7	.08	E.22	--
Mar											
19...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
Jun											
10...	6.0	122	--	--	--	--	9.5	--	--	--	--
Aug											
14...	2.5	--	.13	<.60	7.8	<.04	8.1	E5	.03	<.40	--
											164

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 5 of 6

[QC, quality control sample. Remark codes: <, less than; E, estimated.]

Date	Mangan-										Zinc, water, unfltrd, µg/L (01092)
	Iron, water, unfltrd, recoverable, µg/L (01045)	Lead, water, unfltrd, recoverable, µg/L (01049)	Lead, water, unfltrd, recoverable, µg/L (01051)	Manganese, water, unfltrd, recoverable, µg/L (01055)	Mercury, water, unfltrd, Low level ng/L (71890)	Mercury, water, unfltrd, µg/L (50286)	Mercury, water, unfltrd, µg/L (71900)	Nickel, water, unfltrd, µg/L (01065)	Nickel, water, unfltrd, µg/L (01067)	Selenium, water, unfltrd, µg/L (01147)	
Nov											
02...	--	--	--	--	--	.09	--	--	--	--	--
02...	--	--	--	--	--	1.02	--	--	--	--	--
02...	--	--	--	--	--	.92	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
Feb											
04...	--	.13	--	--	<.010	--	--	.21	--	--	<1.8
04...	178	--	1.00	22.9	--	--	<.010	--	.73	.11	<.02
Mar											
19...	--	--	--	--	--	.09	--	--	--	--	--
19...	--	--	--	--	--	2.13	--	--	--	--	--
Jun											
10...	--	--	--	--	--	--	--	--	--	--	--
Aug											
14...	164	--	.41	5.6	--	--	<.010	--	.32	.08	<.02
											3.9

01466500 MCDONALDS BRANCH IN BYRNE STATE FOREST, NJ—Continued

**WATER-QUALITY
DATA
WATER YEAR
OCTOBER 2007 TO
SEPTEMBER 2008**

Part 6 of 6
[QC, quality control
sample. Remark codes:
<, less than;
E, estimated.]

Methyl- mercury water, unfiltrd	
Low level	
Date	ng/L (50284)
Nov	
02...	<.04
02...	.13
02...	.12
19...	--
Feb	
04...	--
04...	--
Mar	
19...	<.04
19...	<.04
Jun	
10...	--
Aug	
14...	--

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Part 1 of 7
[Remark codes: <, less than.]

Date	2,6-Di-	2Chloro	CIAT,	2-Ethyl	-6-	3,4-Di-	3,5-Di-	4-	Aceto-	alpha-	Endo-	Atra-	Azin-
	ethyl-	-2',6'-		methyl-	chloro-	chloro-	chloro-	Chloro-		chlor,			
1-Naph-	aniline	-diethyl											methyl
thol,	water,	acet-											oxon,
water,	water,	anilide											water,
fltrd	fltrd	wat flt											water,
0.7u GF	0.7u GF	wat flt											water,
	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L	μg/L
	(49295)	(82660)	(61618)	(04040)	(61620)	(61625)	(61627)	(61633)	(49260)	(46342)	(34362)	(39632)	(61635)
Jun													
10...	<.04	<.006	<.010	<.014	<.010	<.006	<.008	<.005	<.006	<.006	<.006	<.007	<.04

01466500 MCDONALDS BRANCH IN BYRNE STATE FOREST, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 2 of 7

[Remark codes: <, less than.]

Date	Azin-phos-methyl, water, fltrd 0.7u GF	Ben-flur-alin, water, fltrd 0.7u GF	Car-baryl, water, fltrd 0.7u GF	Carbo-furan, water, fltrd 0.7u GF	Chlor-pyrifos oxon, water, fltrd, 0.7u GF	Chlor-pyrifos water, fltrd, 0.7u GF	cis-Per-methrin water 0.7u GF	cis-Propi-conazole, water, fltrd, 0.7u GF	Cyana-zine, water, fltrd, 0.7u GF	Cyflu-thrin, water, fltrd, 0.7u GF	lambda-Cyhalothrin, water, fltrd, 0.7u GF	Cyper-methrin water, fltrd 0.7u GF	DCPA, water, fltrd 0.7u GF
	μg/L (82686)	μg/L (82673)	μg/L (82680)	μg/L (82674)	μg/L (61636)	μg/L (38933)	μg/L (82687)	μg/L (79846)	μg/L (04041)	μg/L (61585)	μg/L (61595)	μg/L (61586)	μg/L (82682)
Jun 10...	<.120	<.010	<.060	<.020	<.06	<.005	<.010	<.006	<.020	<.016	<.004	<.014	<.003

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 3 of 7

[Remark codes: <, less than.]

Date	Desulf-inyl-fipro-nil, water, fltrd, 0.7u GF	Diazi-non, water, fltrd, 0.7u GF	Dicro-tophos, water, fltrd, 0.7u GF	Diel-drin, water, fltrd, 0.7u GF	Dimeth-oate, water, fltrd 0.7u GF	Disulf-oton sulfone water, fltrd 0.7u GF	Disul-foton, water, fltrd 0.7u GF	Endo-sulfan sulfate water, fltrd 0.7u GF	EPTC, water, fltrd 0.7u GF	Ethion monoxon water, fltrd 0.7u GF	Ethion, water, fltrd 0.7u GF	Etho-prop, water, fltrd, 0.7u GF	Fenami-phos sulfone water, fltrd 0.7u GF
	μg/L (62170)	μg/L (39572)	μg/L (38454)	μg/L (39381)	μg/L (82662)	μg/L (61640)	μg/L (82677)	μg/L (61590)	μg/L (82668)	μg/L (61644)	μg/L (82346)	μg/L (82672)	μg/L (61645)
Jun 10...	<.012	<.005	<.08	<.009	<.006	<.01	<.04	<.022	<.002	<.02	<.006	<.012	<.053

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

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[Remark codes: <, less than.]

Date	Fenami-phos sulfide, water, fltrd, 0.7u GF	Desulf-inyl-fipro-nil Fenami-phos, water, fltrd, 0.7u GF	Fipro-nil amide, wat flt	Fipro-nil sulfide water, fltrd, 0.7u GF	Fipro-nil sulfone water, fltrd, 0.7u GF	Fipro-nil water, fltrd, 0.7u GF	Fonofos water, fltrd, 0.7u GF	Hexa-zinone, water, fltrd, 0.7u GF	Ipro-dione, water, fltrd, 0.7u GF	Isofen-phos, water, fltrd, 0.7u GF	Mala-oxon, water, fltrd, 0.7u GF	Mala-thion, water, fltrd, 0.7u GF	Metaxyl, water, fltrd, 0.7u GF
	μg/L (61646)	μg/L (61591)	μg/L (62169)	μg/L (62167)	μg/L (62168)	μg/L (62166)	μg/L (04095)	μg/L (04025)	μg/L (61593)	μg/L (61594)	μg/L (61652)	μg/L (39532)	μg/L (61596)
Jun 10...	<.20	<.03	<.029	<.013	<.024	<.020	<.010	<.008	<.01	<.006	<.020	<.016	<.007

01466500 MCDONALDS BRANCH IN BYRNE STATE FOREST, NJ—Continued

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**

Part 5 of 7

[Remark codes: <, less than.]

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 6 of 7

[Remark codes: <, less than.]

	Promo-ton, water, filtrd,	Promo-tryn, water, filtrd,	Propy-zamide, water, filtrd	Pro-panil, water, filtrd	Propar-gite, water, filtrd	Simazine, water, filtrd	Tebu-thiuron water, 0.7u GF	Teflu-thrin, water, filtrd	Ter-bufos oxon sulfone	Terbu-fos, water, filtrd	Ter-buthyl- azine, water, filtrd	Thio-bencarb, water, 0.7u GF	trans- Propi-conazole, water, filtrd.
Date	µg/L (04037)	µg/L (04036)	µg/L (82676)	µg/L (82679)	µg/L (82685)	µg/L (04035)	µg/L (82670)	µg/L (61606)	µg/L (61674)	µg/L (82675)	µg/L (04022)	µg/L (82681)	µg/L (79847)
Jun 10...	<.01	<.006	<.004	<.006	<.04	<.006	<.02	<.003	<.04	<.02	<.01	<.010	<.02

**WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO
SEPTEMBER 2008**

Part 7 of 7

[Remark codes: <, less than.]

	Tribu- phos, water, fltrd,	Tri- flur- alin, water, fltrd, 0.7u GF	Di- chlor- vos, water, fltrd, $\mu\text{g/L}$
Date	$\mu\text{g/L}$ (61610)	$\mu\text{g/L}$ (82661)	$\mu\text{g/L}$ (38775)
Jun			
10...	<.035	<.009	<.01

01466500 MCDONALDS BRANCH IN BYRNE STATE FOREST, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 1 of 4

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

Date	Time	pH bed sedimnt std units (70310)	Ammonia + org-N, bed sed total, mg/kg as N (00626)	Phos- phorus, bed sedimnt total, mg/kg as P (00668)	Inor- ganic Total carbon, bed sedimnt total, g/kg (00693)	Chrom- ium, bed sedimnt recover -able, ug/g (64847)	Cadmium bed sedimnt recover -able, ug/g (01028)	Cobalt bed sedimnt recover -able, ug/g (01029)	Copper, bed sedimnt recover -able, ug/g (01043)	Iron, bed sedimnt total digest, ug/g (01170)	Lead, bed sedimnt recover -able, ug/g (01052)		
Aug 14...	0945	6.01	250	150	10	<.2	.4	.030	3.1	.5	<2	980	5.2

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 2 of 4

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

Date	Mangan- ese, bed sedimnt recover -able, ug/g (01053)	Mercury bed sedimnt recover -able, ug/g (71921)	Nickel, bed sedimnt recover -able, ug/g (01068)	Sele- nium, bed sedimnt recover -able, ug/g (64848)	Zinc, bed sedimnt recover -able, ug/g (01093)	1,2-Di- methyl- naphth- alene, <2 mm, ug/kg (49403)	1,6-Di- methyl- naphth- alene, <2 mm, ug/kg (49404)	1Methyl -9H- fluor- ene, <2 mm, ug/kg (49398)	1-Methyl- phenan- threne, <2 mm, ug/kg (49410)	1- Methyl- pyrene, wsv nat (49388)	236Tri- methyl- naphth- alene, <2 mm, ug/kg (49405)	2,6-Di- methyl- naphth- alene, <2 mm, ug/kg (49406)	2-Ethyl naphth- alene bed sed bed sed
Aug 14...	2.5	.012	1.0	<.1	11	<50	<50	<50	<50	<50	M	E8	<50

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 3 of 4

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

Date	2- Methyl- anthra- cene, bed sed <2 mm, bs <2mm ug/kg (49435)	4H-Cyc- lopenta Fluor- ene, bed sed <2 mm, wsv nat ug/kg (49411)	9H- Fluor- ene, bed sed <2 mm, wsv nat ug/kg (49399)	Ace- naphth- ene, bed sed <2 mm, wsv nat ug/kg (49429)	Ace- naphth- ylene, bed sed <2 mm, wsv nat ug/kg (49428)	Anthra- cene, bed sed <2 mm, wsv nat ug/kg (49434)	Benzo- [a]- anthra- cene, bed sed field, <2 mm, wsv nat ug/kg (49436)	Benzo- [a]- pyrene, bed sed field, <2 mm, wsv nat ug/kg (49389)	Benzo- [b]- anthene bed sed field, <2 mm, wsv nat ug/kg (49458)	Benzo- [ghi]- peryl- ene, bed sed field, <2 mm, wsv nat ug/kg (49408)	Benzo- [k]- anthene bed sed field, <2 mm, wsv nat ug/kg (49397)	Chry- sene, bed sed field, <2 mm, wsv nat ug/kg (49450)	Dibenzo- -[a,h]- anthra- cene, bed sed field, <2 mm, wsv nat ug/kg (49461)
Aug 14...	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50

01466500 MCDONALDS BRANCH IN BYRNE STATE FOREST, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 4 of 4

[Remark codes: <, less than; E, estimated; M, presence verified but not quantified.]

Date	Fluor-anthene <2 mm wsv nat field, ug/kg (49466)	Indeno-[1,2,- 3-cd]- bed sed bed sed bed sed wsv nat bed sed field, ug/kg (49390)	Iso-phorone bed sed <2 mm, wsv nat bed sed wsv nat sedimnt	Naphth-alene, bed sed <2 mm bed sed wsv nat wsv nat sedimnt	p-Cresol, PCBs, ug/kg (49402)	Phenan-threne, bed sed <2 mm, wsv nat field, ug/kg (39519)	Phenan-threne, bed sed <2 mm, wsv nat field, ug/kg (49451)	Pyrene, bed sed <2 mm, wsv nat field, ug/kg (49409)	Bed sediment, dry svd sve dia percent <62.5um (80164)	
Aug 14...	E5	<50	<50	<50	<5.00	<50	E3	<50	E4	2

01466500 MCDONALDS BRANCH IN BYRNE STATE FOREST, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
 Part 1 of 2
 [Remark codes: <, less than; E, estimated.]

Date	Time	Instantaneous discharge, ft ³ /s (00061)	Temperature, water, deg C (00010)	Hardness, water, mg/L as CaCO ₃ (00900)	Calcium water, filtrd, mg/L (00915)	Magnesium water, filtrd, mg/L (00925)	Potassium water, filtrd, mg/L (00935)	Sodium water, filtrd, mg/L (00930)	ANC, water, unfltrd Gran titr., ueq/L (00409)	Chloride, water, filtrd, mg/L (00940)	Silica, water, filtrd, mg/L as SiO ₂ (00955)	Sulfate water, filtrd, mg/L (00945)	Ammonia water, unfltrd mg/L as N (00610)
Oct													
19...	1900	1.1	15.2	3	.57	.42	.29	1.93	-11	3.9	.966	3.6	.034
26...	1140	.90	14.7	3	.47	.37	.29	1.88	-22	3.9	.408	3.3	<.028
Nov													
26...	1000	1.0	8.5	3	.51	.48	.31	1.93	-1	3.7	2.26	4.9	<.028
Dec													
03...	1610	1.2	8.2	5	.74	.71	.38	2.33	-43	3.7	<.169	5.9	<.028
16...	1215	1.4	7.7	5	.72	.67	.39	2.09	-50	3.7	<.169	6.1	<.028
Jan													
11...	1405	1.9	8.8	5	.80	.64	.40	1.98	-25	3.5	.313	5.7	<.028
31...	1415	E1.5	5.2	4	.65	.69	.40	2.26	-48	3.8	2.38	6.1	<.028
Feb													
01...	1055	1.8	5.8		--	.71	.45	2.19	-15	3.8	.537	6.2	.039
01...	2345	2.5	5.3		--	.75	.52	2.36	-48	3.7	.565	7.1	.047
04...	0000	2.4	4.6	6	.95	.77	.46	2.49	-96	3.8	.619	8.3	.057
08...	0015	2.0	6.7		--	.80	.43	2.54	-102	3.7	.555	8.9	.046
13...	0820	2.0	5.6	6	1.35	.73	.41	2.40	-84	3.6	.590	7.9	.043
13...	1220	2.5	5.6	6	1.04	.75	.43	2.45	-99	3.7	.593	8.0	.039
15...	0605	3.5	3.4	6	1.04	.76	.47	2.58	-138	3.8	.502	10.1	.054
Mar													
05...	0535	2.3	6.5	5	.92	.69	.36	2.33	-104	3.7	1.85	8.0	.071
07...	2205	2.9	6.5	5	.85	.65	.36	2.33	-75	3.7	1.76	7.7	.053
08...	1455	3.5	7.0	5	.88	.66	.36	2.34	-126	3.7	1.49	8.4	.084
09...	0620	4.3	6.5	5	.89	.63	.36	2.39	-146	3.6	1.47	9.2	.104
Apr													
04...	0645	2.4	8.0	4	.72	.56	.25	2.25	-101	3.7	1.61	7.1	.068
May													
09...	0415	1.9	12.6	3	.58	.45	.25	2.01	-60	3.5	1.52	4.4	.078
16...	1040	1.8	12.2	3	.56	.46	.20	2.04	-66	3.6	1.59	4.4	.042
Jun													
04...	0300	1.6	14.2	3	.69	.42	.23	1.91	-38	3.5	2.00	3.7	.121
27...	1805	.93	16.2	3	.48	.35	.34	1.84	-29	3.4	2.12	3.0	.245
Jul													
15...	1000	.88	16.0	2	.35	.34	.23	1.81	-6	3.3	2.13	2.6	<.028
Aug													
14...	2215	1.3	17.2	2	.41	.35	.25	1.77	-32	3.5	2.20	3.1	.029
Sep													
06...	2215	1.9	18.5	4	.63	.52	.28	1.85	-49	3.4	1.80	4.1	<.028

01466500 MCDONALDS BRANCH IN BYRNE STATE FOREST, NJ—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Part 2 of 2

[Remark codes: <, less than; E, estimated.]

Date	Nitrate water, filtrd, mg/L as N (00618)	Organic carbon, water, filtrd, mg/L (00681)	Alum- inum, water, filtrd, μg/L (01106)	Iron, water, filtrd, μg/L (01046)	Organic mono- meric alum- inum, wat unf μg/L (49288)
Oct					
19...	<.03	4.8	78	160	<40
26...	<.03	3.2	55	130	<40
Nov					
26...	<.03	2.5	92	90	<40
Dec					
03...	<.03	4.1	88	110	<40
16...	<.03	4.7	96	110	<40
Jan					
11...	<.03	4.7	92	100	<40
31...	<.03	3.9	136	100	<40
Feb					
01...	.05	4.3	--	140	<40
01...	.08	8.1	--	270	61
04...	.04	8.8	322	180	71
08...	<.03	8.6	--	180	68
13...	.03	6.9	442	140	52
13...	.05	8.4	330	170	70
15...	<.03	12.4	392	240	107
Mar					
05...	.04	8.3	305	170	73
07...	.04	10.2	284	170	87
08...	.07	15.0	341	240	107
09...	.04	14.5	367	260	128
Apr					
04...	<.03	9.5	269	180	78
May					
09...	<.03	6.5	159	170	44
16...	<.03	6.7	157	130	<40
Jun					
04...	<.03	6.1	216	--	<40
27...	.07	3.9	78	--	<40
Jul					
15...	<.03	2.9	69	--	<40
Aug					
14...	.04	5.1	89	--	<40
Sep					
06...	.07	11.7	200	--	74